

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/094,052	06/09/1998	PETER W.J. JONES	47513	7937
21874	7590	06/05/2003	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 9169 BOSTON, MA 02209				NGUYEN, THONG Q
ART UNIT		PAPER NUMBER		
2872				

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/094,052	JONES, PETER W.J.
	Examiner Thong Q. Nguyen	Art Unit 2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 March 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5,7-9 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5,7-9,11 and 13-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***R sponse to Amendm nt***

1. The present Office action is made in response to the amendment (Paper No. 28) of 3/6/2003.

### ***Oath/Declaration***

2. The objection to the verified Statement Claiming Small entity Status as set forth in the previous Office actions has been withdrawn. Applicant's arguments provided in the amendment has been fully considered and found persuasive.

### ***Drawings***

3. The objections to the drawings as set forth in the previous Office action has been withdrawn. The amendment to the drawings and applicant's arguments provided in the amendment has been fully considered and found persuasive.

### ***Specification***

4. The lengthy specification which is amended by the amendment has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

5. The rejection to the claims 13-14 under 35 USC 112 as set forth in the previous Office actions has been withdrawn. Applicant's arguments provided in the amendment has been fully considered and found persuasive.

### ***Claim Rej c tions - 35 USC § 103***

Art Unit: 2872

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 8-9 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (U.S. Patent No. 4,929,055, of record) in view of Brennan (U.S. Patent No. 4,323,298).

Jones discloses an apparatus for use with an optical device having a light reflecting surface such as a binocular device, a telescope, a periscope, a rifle scope, a night vision device or the like (see column 1). The apparatus comprises a set of concentric circular vanes positioned in front of a reflecting surface of a lens element located in the optical device for the purpose of reducing the reflection of light incident on the lens reflecting surface of the optical device (see column 2, for example). Each of the circular vanes has a first end disposed near the lens reflecting surface, and a second end disposed away from the first end. It is also noted that a combination of concentric circular vanes and radial vanes is disclosed by Jones as can be seen at column 5 and shown in fig. 9. While Jones does not clearly state the apparatus is mounted on a field goggle; however, such a feature is inherent from the Jones' teaching because at column 1 he states that the apparatus can be used by a person of a battlefield troop in a night time in the form of a night vision device. See Jones, columns 1 and 3-4 and figs. 1 and 8-9, for example. Jones also teaches that his optical apparatus has a length-to-width ratio which is equal to or different from the length-to-width ratio of the field of view (see columns 2, 3-4, claims 1 and 13, for example). In the embodiment provided at column 5, Jones has suggested that the vanes are arranged in a non-parallel manner and in

Art Unit: 2872

inclined angles different from 90 degrees with respect to the lens reflecting surface of the optical device. While in the embodiment provided at column 5, John discloses the use of the inclined vanes in front of device having non-magnification feature such as a mirror or windshield; however, the inclined vanes are also used in front of other optical device having magnification as stated by Jones in column 5, lines 35-41 and column 6, lines 9-15 and column 1, lines 5-9. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize the non-parallel vanes disclosed in the embodiment stated in column 5 for optical device having optical lens of magnification such as binoculars, telescope or goggles as suggested by the same inventor stated in columns 1 and 6 for the purpose of reducing reflections of light incident on a lens surface located behind the mentioned vanes in a binocular or telescope or goggles.

While Jones does not clearly state that the optical device such as a binocular device has a field of view of at least 40 degrees; however, a binocular device having a field of view of 60 degrees is known to one skilled in the art as can be seen in the binocular device provided by Brennan (see column 3 and fig. 5). Thus, it would have been obvious to one skilled in the art at the time the invention was made to use of the anti-reflection with non-parallel vanes in a binocular device having a wide filed of view such as the binocular provided by Brennan for the purpose of reducing reflections of light incident on a lens surface located behind the mentioned vanes in a binocular or telescope or goggles while still maintaining a wide field of view for the user of such device.

Art Unit: 2872

8. Claims 1-5, 7, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (U.S. Patent No. 4,929,055) in view of Softly (U.S. Patent No. 4,365,866) (both of record).

Jones discloses an apparatus for use with an optical device having a light reflecting surface such as a binocular device, a telescope, a periscope, a rifle scope, a night vision device or the like (see column 1). The apparatus comprises a set of concentric circular vanes disposed in front of a lens surface of an optical device for the purpose of reducing the reflection of light incident on the lens reflecting surface of the optical device while still maintaining a substantially field of view (see column 2, for example). Each of the circular vanes has a first end disposed near the lens reflecting surface, and a second end disposed away from the first end. It is also noted that a combination of concentric circular vanes and radial vanes is disclosed by Jones as can be seen at column 5 and shown in fig. 9. While Jones does not clearly state the apparatus is mounted on a field goggle; however, such a feature is inherent from the Jones' teaching because at column 1 he states that the apparatus can be used by a person of a battlefield troop in a night time in the form of a night vision device. See Jones, columns 1 and 3-4 and figs. 1 and 8-9, for example. Jones also teaches that his optical apparatus has a length-to-width ratio which is equal to or different from the length-to-width ratio of the field of view (see columns 2, 3-4, claims 1 and 13, for example). In the embodiment provided at column 5, Jones has suggested that the vanes are arranged in a non-parallel manner and in inclined angles different from 90 degrees with respect to the lens reflecting surface of the optical device. As a result of

Art Unit: 2872

such an arrangement, the distance between two adjacent first ends of the vanes is different from the distance defined between two adjacent second ends of the vanes.

While in the embodiment provided at column 5, John discloses the use of the inclined vanes in front of device having non-magnification feature such as a mirror or windshield; however, the inclined vanes are also used in front of other optical device having magnification as stated by John in column 6, lines 9-15 thereof "Structures in accordance with the inventions can be...the like." See also column 1.

Thus, the structure concerning the vanes disposed in front of a lens surface having a curved shape for reduction light reflections incident on the lens surface as provided by Jones meets almost all features recited in the present claims. The only feature missing from the Jones reference is that he does not clearly teach that the first ends of the concentric circular vanes are spaced further apart from each other at a different distance than the second ends of the concentric circular vanes are spaced apart from each other. However, such an arrangement of the vanes as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for this conclusion is found in the present specification in which it suggests a variation of arrangements of the vanes. In one variation of arrangement of the vanes, the distance between two adjacent first ends is smaller than the distance between two adjacent second ends. See specification at pages 5-6 and figs. 6-7 and 10-11, for example.

Further, it is noted that the use of an array of vanes disposed in front of a lens surface having a curved shape for the purpose of reduction light reflections incident on

Art Unit: 2872

the lens surface wherein the distance between two adjacent first ends near the lens surface of a vane is larger than the distance between two adjacent second ends farther from the lens surface of the vane for the purpose of reduction the light reflection incident on the lens surface is suggested to one skilled in the art as can be seen in the system provided by Softy. In particular, Softy discloses the use of an array of vanes (21) in front of a curved screen (11) and teaches that the vanes are arranged in a manner that the first ends near the curved screen of the vanes is spaced further apart from each other at a different distance than the second ends disposed farther from the curved screen of the vanes are spaced apart from each other. See columns 2-3 and figs. 2-4, in particular, at column 2, lines 52-57 which states: "In a television studio most of the ambient light falls towards the monitor screen from an upward direction rather from the side, and so the horizontally extending slats 21 are suitably positioned to intercept this light which would otherwise be reflected from the screen and impair the quality of the image."

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the apparatus having vanes disposed in front of a lens reflecting surface of an optical device as provided by Jones (column 5, lines 10-34) by rearranging the orientation of the vanes so that the distance between two adjacent first ends of the vanes is different from the distance defined between two adjacent second ends of the vanes as suggested by Softy for the purpose of reducing the light reflection while still maintaining the wide field of view of the optical device.

***R spons to Arguments***

9. Applicant's arguments filed on 3/6/2003 (Paper No. 28, pages 4-19) have been fully considered but they are not persuasive.

A) Regard to the rejection of claims 8-9 under 35 USC 103(a) over the art of Jones (U.S. Patent No. 4,929,055), applicant arguments provided in the mentioned amendment, pages 4-9) have been fully considered but they are not persuasive. The examiner respectfully disagrees with the applicant's opinions for the following reasons.

The use of an anti-reflection device for reduction the reflections as taught by Jones is able to applied to optical device having optical magnification. The support for that conclusion is found in the specification of the Jones patent in column 5, lines 35-41, column 1, lines 5-9, and column 6, the second and third paragraphs. Applicant should note that the paragraph thereof "The tubular elements...in question" (column 5, lines 35-41) and the suggestion of use the anti-reflection device in column 6 suggest to one skilled in the art to utilize the system of Jones in an optical device having an optical surface with or without optical magnification. Applicant should further note that the use of an anti-reflection device having non-parallel vanes as shown in figure 10 is an example of the use of the device provided by Jones only. The whole specification has not have any indication or information which says that the device with non-parallel vanes could not be used in optical device having a surface with magnification. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount

to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. In this case, the structure of the anti-reflection device having non-parallel vanes mounted in front of an optical surface as described in the present application and that disclose in column 5 are similar, if not identical, to each other. The specification has also suggested the use of the anti-reflection device with non-parallel vanes mounted in front of an optical reflective surface of other optical device which surface has an optical magnification. With regard to the feature relating to the so-called "wide field of view" of the optical lens, it would have been obvious to one skilled in the art to utilize the anti-reflection device with non-parallel vanes provided by Jones for an optical device having a wide field of view without any obstruction to the wide field of view. The support for the maintain of the field of view is found in the specification of Jones in columns 3-4, in which Jones teaches the control/adjustment of the ratio of the device is substantially equal to the ratio of the field of view of the optical lens, and a binocular device having a field of view of 60 degrees is disclosed by Brennan..

B) Regard to the rejection of claims 1-5, 7, 11 and 15 under 35 USC 103(a) over the art of Jones (U.S. Patent No. 4,929,055), applicant arguments provided in the mentioned amendment, pages 9-19) have been fully considered but they are not persuasive. The examiner respectfully disagrees with the applicant's opinions for the following reasons.

First, the examiner's opinion relating to the art of Jones as set forth in section A) above is still applied in response to the applicant's opinion about the same reference. Second, with regard to the applicant's analysis relating to the structure of the presently claimed device and the art of Softy, the examiner respectfully disagrees with the applicant's opinions.

Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant should note that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

The art of Softy is used by the examiner to show the use of an antireflection device mounted/arranged in front of an optical lens having an optical reflection surface for reducing the reflection wherein the antireflection device has a structure similar to that of the device claimed. In the device of Softy, the array of vanes disposed in front of a lens surface having a curved shape for the purpose of reduction light reflections incident on the lens surface wherein the distance between two adjacent first ends near the lens surface of a vane is larger than the distance between two adjacent second ends farther from the lens surface of the vane.

Art Unit: 2872

The examiner has not suggested to tried to bodily incorporate the two structures into one. The feature of variable orientation of slabs disposed in front of a reflecting surface provided by Softly is the suggestion which one skilled in the art will utilize to modify/improve the system of Jones for the purpose of increasing the ability of reduction of light refraction. Applicant should note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

### **Conclusion**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Application/Control Number: 09/094,052

Art Unit: 2872

Page 12

Thong Q. Nguyen  
Primary Examiner  
Art Unit 2872

\*\*\*

May 30, 2003